

AMENDMENTS TO THE CLAIMS

Claims 1-10 (Canceled)

Claim 11 (Currently Amended) A feedback controlled tension applying system, comprising:

a material processing device operable to process a material in a continuous sheet form while tension is applied to the material;

a tension applying device operable to apply the tension to the material;

a measuring device operable to measure a moving length amount of the material over time; and

a control device operable to feedback-control the tension applying device based on a measurement result of said measuring device so that said tension applying device increases the tension applied to the material when the moving length amount of the material over time exceeds a set value that has been set in advance and said tension applying device decreases the tension applied to the material when the moving length amount of the material over time falls below the set value;

wherein said measuring device comprises:

a measuring roll that rotates in contact with the material; and

an encoder that is operable to detect an amount regarding a rotation angle of said measuring roll;

wherein said measuring device is operable to measure the moving length amount of the material over time based on the amount regarding the rotation angle of said measuring roll detected by said encoder; and

wherein said tension applying device ~~system~~ comprises:

a base;

an arm having end portions, wherein one of said end portions is fixed to said base so as to be vertically swingable and another of said end portions has a pulley for applying a load to the material; and

a balance weight movable on said arm in opposite directions along said arm under the control of said control device.

Claim 12 (Previously Presented) The system of claim 11, wherein said material processing device is operable to process the material in a longitudinal direction of the material.

Claim 13 (Canceled)

Claim 14 (Currently Amended) A feedback controlled tension applying system, comprising:

a material processing device operable to process a material in a continuous sheet form while tension is applied to the material;

a tension applying device operable to apply the tension to the material;

a measuring device operable to measure a moving length amount of the material over time; and

a control device operable to feedback-control the tension applying device based on a measurement result of said measuring device so that said tension applying device increases the tension applied to the material when the moving length amount of the material over time exceeds a set value that has been set in advance and said tension applying device decreases the tension applied to the material when the moving length amount of the material over time falls below the set value;

wherein said tension applying device ~~system~~ comprises:

a base;

an arm having end portions, wherein one of said end portions is fixed to said base so as to be vertically swingable and another of said end portions has a pulley for applying a load to the material; and

a balance weight movable on said arm in opposite directions along said arm under the control of said control device.

Claim 15 (Previously Presented) The system of claim 14, wherein said material processing device is operable to process the material in a longitudinal direction of the material.

Claims 16-25 (Canceled)